AMENDMENTS

IN THE CLAIMS

Please amend claims 1, 12, 13, 16, 27-31, and 36 as shown below.
Please cancel claims 9-11, 17-26, 34-35, 37-38, and 46-47 without prejudice to renewal.

1. (Presently amended) A method for ~~increasing endogenous gamma globin (γ-globin) in~~treating a subject having a hemoglobinopathy, the method comprising administering to the subject in need thereof a compound, wherein the compound inhibits hypoxia-inducible factor (HIF) prolyl hydroxylase ~~inhibitor which~~and wherein the compound increases expression of the gene encoding γ-globin in a bone marrow-derived cell or population of cells in the subject ~~selected from the group consisting of hematopoietic stem cells and blast-forming unit erythroid (BFU-E) cells~~.

2-11. (Canceled)

12. (Presently amended) The method of claim ~~1~~1, wherein ~~abnormal~~the hemoglobinopathy comprises an alteration in the level, structural integrity, or activity of adult β-globin.

13. (Presently amended) The method of claim ~~1~~1, wherein the ~~disorder~~hemoglobinopathy is selected from the group consisting of β thalassemias and sickle cell syndromes.

14. (Original) The method of claim 13, wherein the β-thalassemia is selected from β^0- and β^+-thalassemia.

15. (Original) The method of claim 13, wherein the sickle cell syndrome is selected from sickle trait, sickle β thalassemia, and sickle cell anemia.

16. (Presently amended) ~~A method for increasing~~ The method of claim 1, wherein the proportion of fetal hemoglobin relative to non-fetal hemoglobin produced by ~~a~~the bone marrow-derived cell or population of cells in the subject is increased~~, the method comprising administering to the cell or population of cells a hypoxia-inducible factor (HIF) prolyl hydroxylase inhibitor which increases expression of the gene encoding γ-globin~~.

17-26. (Canceled)

27. (Presently amended) The method of claim ~~25~~1, wherein the bone marrow-derived cell or population of cells is selected from the group consisting of hematopoietic stem cells and blast-forming unit erythroid (BFU-E) cells.

28. (Presently amended) A method for increasing the level of fetal hemoglobin in a subject, the method comprising:

(a) administering *ex vivo* to a population of cells derived from bone marrow a hypoxia-inducible factor (HIF) prolyl hydroxylase inhibitor which increases expression of the gene encoding γ-globin; and

(b) transfusing the γ-globin expressing cells into the subject.

29. (Presently amended) The method of claim 28, wherein the subject has a ~~disorder associated with abnormal hemoglobin~~hemoglobinopathy.

30. (Presently amended) The method of claim 29, wherein ~~abnormal~~the hemoglobinopathy comprises an alteration in the level, structural integrity, or activity of adult β-globin.

31. (Presently amended) The method of claim 29, wherein the ~~disorder~~hemoglobinopathy is selected from the group consisting of β thalassemias and sickle cell syndromes.

32. (Original) The method of claim 31, wherein the β-thalassemia is selected from β^0- and β^+-thalassemia.

33. (Original) The method of claim 31, wherein the sickle cell syndrome is selected from sickle trait, sickle β thalassemia, and sickle cell anemia.

34-35. (Canceled)

36. (Presently amended) The method of claim 28, wherein the cells are selected from the group consisting of hematopoietic stem cells, and blast-forming unit erythroid (BFU-E) cells~~, and bone marrow cells~~.

37-47. (Canceled)

48. (Previously presented) The method of claim 1, wherein the HIF prolyl hydroxylase inhibitor is selected from the group consisting of an iron chelator, a 2-oxoglutarate mimetic, and a proline analog.

49. (Previously presented) The method of claim 48, wherein the 2-oxoglutarate mimetic inhibits HIF prolyl hydroxylase competitively with respect to 2-oxoglutarate and noncompetitively with respect to iron.